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The Indochina Entomologist
OPEN ACCESS
Revision
ICE, 1 (91): 909–928 (2025)
ISSN (Online) 3065-1107
www.indochinaentomologist.com

https://doi.org/10.70590/ice.2025.01.91
http://zoobank.org/urn:lsid:zoobank.org:pub:DB5DCDC5-00D6-4D6B-8419-A211A7D928CB

A revision of the *Anomala cinderella* species group (Coleoptera: Scarabaeidae: Rutelinae)

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Abstract: The *Anomala cinderella* species group from Himalaya and Yunnan, China is defined morphologically. Three new species are described: *Anomala liuhaoyii* Zhao, **sp. nov.**, *Anomala pemako* Zhao, **sp. nov.**, and *Anomala dulongensis* Zhao, **sp. nov.** Lectotype is designated for *Anomala ciliatipes* Arrow, 1917 and *Anomala cinderella* Arrow, 1917. Additional new faunistic records are also presented for other known species.

Keywords: Anomalini, China, Himalaya, India, new species, species group

半毛异丽金龟种组 *Anomala cinderella* species group 分类修订（鞘翅目：金龟科：丽金龟亚科）

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摘要：本文在形态上定义了分布于喜马拉雅和云南的半毛异丽金龟种组 *Anomala cinderella* species group，并描述了三个新种，即昊祎异丽金龟 *Anomala liuhaoyii* Zhao, **sp. nov.**，墨脱异丽金龟 *Anomala pemako* Zhao, **sp. nov.**以及独龙异丽金龟 *Anomala dulongensis* Zhao, **sp. nov.**，对环毛异丽金龟 *Anomala ciliatipes* Arrow, 1917 以及半毛异丽金龟 *Anomala cinderella* Arrow, 1917 进行了选模指定，同时更新了已知种的地理分布记录。

关键词：异丽金龟族，中国，喜马拉雅，印度，新种，种组

Citation: Zhao M-Z 2025: A revision of the *Anomala cinderella* species group (Coleoptera: Scarabaeidae: Rutelinae). *The Indochina Entomologist*, 1 (91): 909–928. [赵明智 2025: 半毛异丽金龟种组 *Anomala cinderella* species group 分类修订（鞘翅目：金龟科：丽金龟亚科）. 中南半岛昆虫学家, 1 (91): 909–928.]
https://doi.org/10.70590/ice.2025.01.91

Accepted by Hao XU: 8.XII.2025; published online: 13.XII.2025

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Introduction

The genus *Anomala* Samouelle, 1819 is amongst the most diverse genera in the tribe Anomalini Blanchard, 1851 and in the subfamily Rutelinae Macleay, 1819, with over 1000 known taxa (Ratcliffe *et al.* 2018). The *Anomala* species from Himalaya and adjacent are very diversified (Arrow 1917; Zhao *et al.* 2025) and a good number of new species are expected to be discovered.

Anomala cinderella Arrow, 1917 is one of the most conspicuous species described from Himalaya. It can be easily recognized by the setose pronotum and the glabrous elytra, in combination to elevated elytral intervals (Arrow 1917). Two Chinese species are described and believed to be similar, viz. *A. piliscutella* Lin, 1981 and *A. hirtidorsa* Lin, 1999. During recent study of *Anomala*, I found several more related species. Therefore the *Anomala cinderella*-group is defined and revised here.

Material and methods

Type specimens of the new species are cited verbatim and each provided with one label "HOLOTYPE [or] PARATYPE [*taxon name*] des. Zhao, 2025". Type specimens of species with newly designated lectotype are likewise labeled "LECTOTYPE [or] PARALECTOTYPE [*taxon name*] des. Zhao, 2025". Citation of individual labels were separated by a double slashes (//). The specimens were observed and dissected under a Motic SMZ-171 stereomicroscope. Images for habitus and male genitalia were taken using a Canon EOS 760D camera in conjunction with a Laowa 60 mm f/2.8 2X Ultra-Macro Lens and a Laowa 25 mm f/2.8 2.5-5X Ultra Macro Lens, respectively. Zerene Stacker (version 1.04) was used for stacking. The distribution maps were produced by QGIS 3.40.5. All images were edited and arranged into plates in Adobe Photoshop CS5. Specimens quoted in the present paper are deposited in the following public or personal collections:

IZGAS	Institute of Zoology, Guangdong Academy of Science, Guangzhou, China;
MNHN	Muséum national d'histoire naturelle, Paris, France;
NHMB	Naturhistorisches Museum Basel, Switzerland;
NHMUK	Natural History Museum, London, United Kingdom;
NHMW	Naturhistorisches Museum Wien, Vienna, Austria;
NMBF	G. Frey's collection, Naturhistorisches Museum, Basel, Switzerland;
NMPC	National Museum, Praha, Czech Republic;
SCAU	South China Agricultural University, Guangzhou, China;
SDEI	Senckenberg German Entomological Institute, Müncheberg, Germany;
ZSM	Zoologischen Staatssammlung München, Germany;
ARPC	Andreas Reichenbach personal collection, Leipzig, Germany;
CCPC	Chang-Chin Chen personal collection, Tianjin, China;
CZPC	Carsten Zorn personal collection, Gnoien, Germany;
GSPC	Guido Sabatinelli personal collection, Prévessin, France;
ZMPC	Ming-Zhi Zhao personal collection, Zhuhai, China;
ZYPC	Yao-Nan Zhang personal collection, Beijing, China.

Taxonomy

The *Anomala cinderella* species group

Diagnosis. Body cylindrical, medium-sized (ca. 9–14 mm). Integument reddish brown to brown, glossy and usually with strong greenish luster. Ventral margin of clypeus more produced distally than dorsal anterior margin

(Fig. 5B–C, except for *A. ciliatipes*, fig. 5A). Disc of pronotum usually evenly setose, setae distinct and erect, sometimes only bearing few setae near borders. Elytral intervals strongly and equally elevated, strial punctures fine, punctures on intervals smaller (except for subsutural interstice). Abdominal ventrites 1–4 strongly carinate laterally (Fig. 5K); pygidium moderately tumid preapically in male, triangular and weakly tumid in female. Male metatrochanter apically not exceeding posterior margin of metafemur. Parameres basally slightly overlapping in dorsal view, or not overlapping and connected by a membrane; parameres not bifid, apical half distinctly narrowed; completely glabrous. Ventral plate usually slightly longer than parameres (except for *A. ciliatipes*), ventrally ridged or serrated.

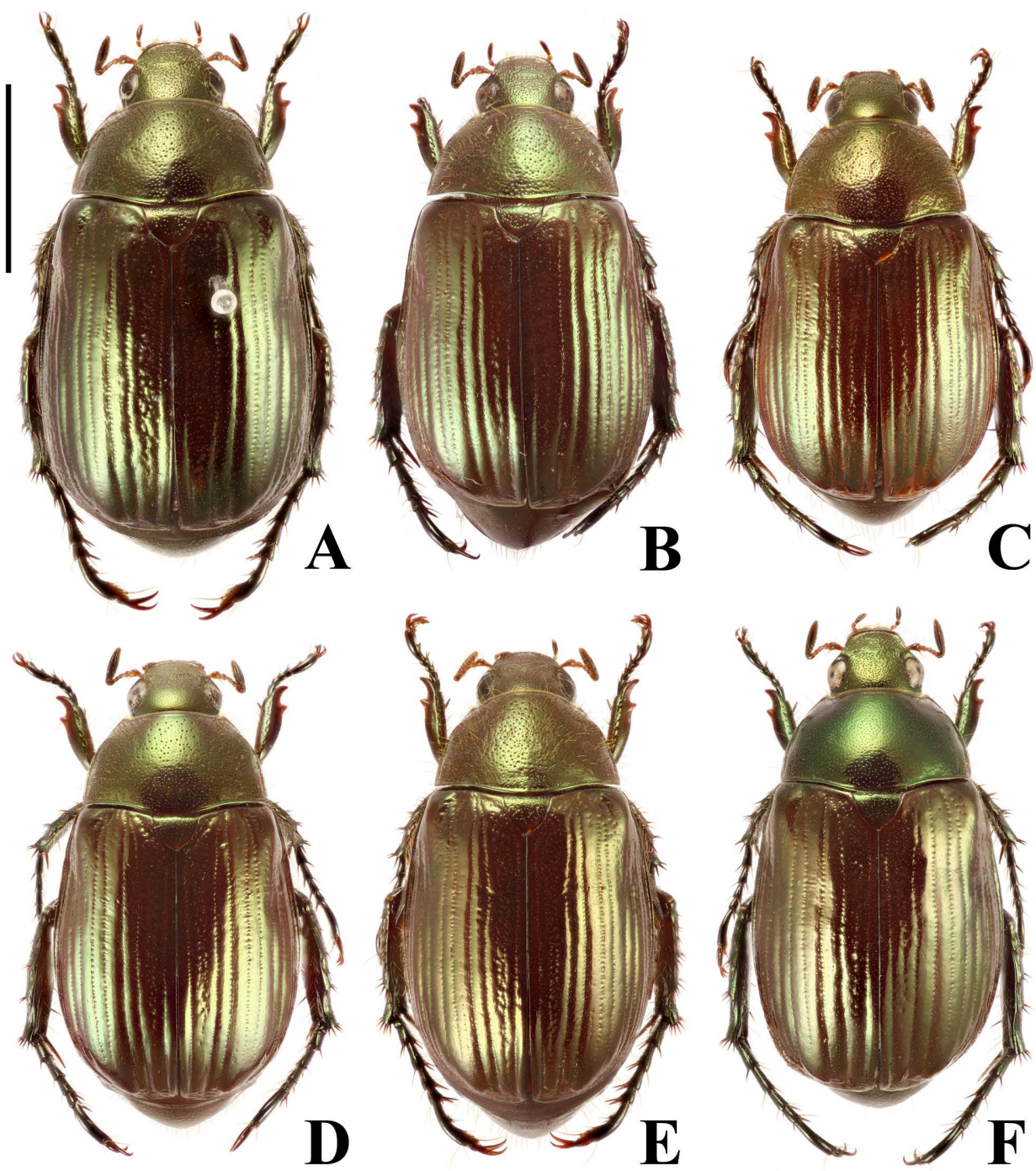

FIGURE 1. Habitus of *Anomala* spp., male in dorsal view: **A** *A. liuhaoyii* Zhao, **sp. nov.** (holotype, Gelin) **B** *A. cinderella* Arrow, 1917 (Darjeeling) **C** *A. pemako* Zhao, **sp. nov.** (holotype, Motuo) **D** *A. hirtidorsa* Lin, 1999 (Banggunjianshan) **E** *A. piliscutella* Lin, 1981 (Motuo) **F** *A. dulongensis* Zhao, **sp. nov.** (holotype, Dulongjiang). Scale bar = 5 mm.

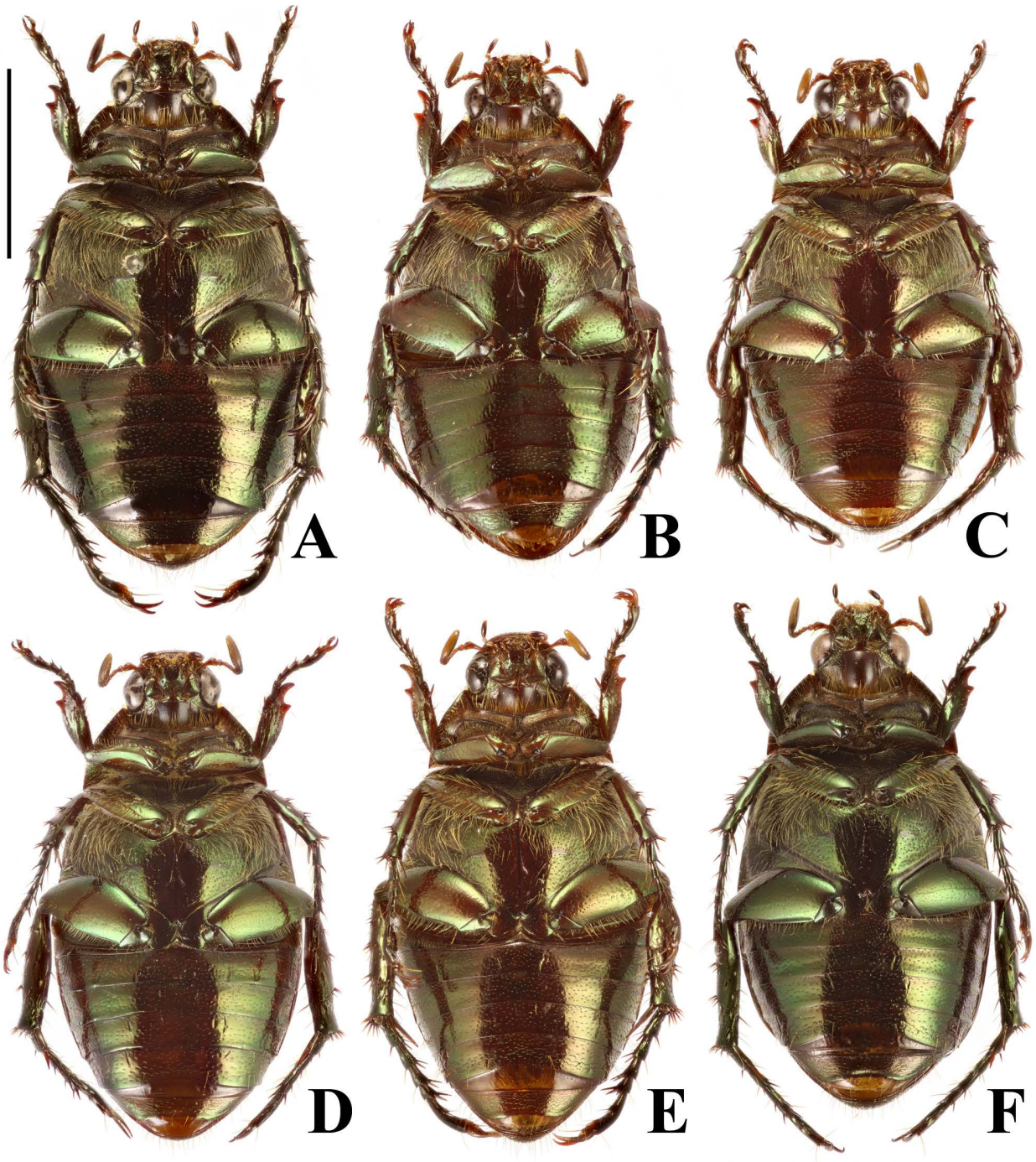

FIGURE 2. Habitus of *Anomala* spp., male in ventral view: **A** *A. liuhaoyii* Zhao, **sp. nov.** (holotype, Gelin) **B** *A. cinderella* Arrow, 1917 (Darjeeling) **C** *A. pemako* Zhao, **sp. nov.** (holotype, Motuo) **D** *A. hirtidorsa* Lin, 1999 (Banggunjianshan) **E** *A. piliscutella* Lin, 1981 (Motuo) **F** *A. dulongensis* Zhao, **sp. nov.** (holotype, Dulongjiang). Scale bar = 5 mm.

***Anomala cinderella* Arrow, 1917 半毛异丽金龟**

Figs 1B, 2B, 3D, 3H, 4G, 5D, 5K, 6B, 6H, 6N, 7B, 7F, 7J

Anomala cinderella Arrow, 1917: 196 [original description, type locality: “Sikkim, Darjiling, Nagri Spur, 5000 ft.”, “Gopaldhara, Rungbong Valley, 6300 ft.”].

Anomala hirticollis Frey, 1975: 314, fig. 1 [original description, type locality: “Nepal, Katmandu Valley, Godavari, 1600–1800 m”]; Zorn 2005: 304 [junior synonym].

Type material. (5♂♂, 1♀). ***Anomala cinderella* Arrow, 1917: Lectotype (hereby designated).** 1♂ (NHMUK) 1♂ "Type H.T. // Nagri Spur, Darjeeling. 5,000 ft. 1912–83 // *anomala cinderella, type arrow* // NHMUK 016502933"; **Paralectotype.** 1♂ (NHMUK) "Gopaldhara, Darjeeling. 1914.–414. // NHMUK 010844181". ***Anomala hirticollis* Frey, 1975: Holotype.** ♂ (ZSM) "Nepal, Kathmandu Valley Godavari, 16–1800m 4.VIII. ~~7. IV~~ 1967 Dierl – ~~Forster~~ – Schacht | Type *Anomala hirticollis* G.Frey 1975"; **Paratypes.** 1♂ (ZSM), 1♂, 1♀ (NMBF) "Nepal, Kathmandu Valley Godavari, 16–1800m 4.VIII. ~~7. IV~~ 1967 Dierl – ~~Forster~~ – Schacht | Paratype *Anomala hirticollis* G.Frey 1975".

Additional material (6♂♂, 6♀♀)**. NEPAL:** 1♂ (NHMB) "Umg. Kathmandu 28-30.VI.1989 // Nepal Bagmati M. Brancucci"; **INDIA:** 1♀ (NHMB) "Kalimpong 1180m VII.-VIII. // India 1983 Bhakta Bahadur"; 2♀♀ (NHMB) "Kalimpong 9th mile 1500m 14.VII.84 // India Darjeeling D. C.J. Rai"; 1♂ (ZMPC) "INDIA Darjeeling"; 3♂♂ (MNHN) "British Bootang Maria Basti L. Durel"; 2♀♀ (MNHN) "British Bootang L. Durel 1898 // MUSÉUM PARIS 1952 COLL. R. OBERTHÜR"; 1♀ (CZPC) "INDIA – SIKKIM west PEELING env., 2100m 18.-20.7.1997 Jan Schneider lgt."; **BHUTAN:** 1♂ (GSPC) "21 km O Wangdi Phodr. [Wangdue Phodrang] 1700–2000 // Nat.-Hist. Museum Basel - Bhutan Expedition 1972".

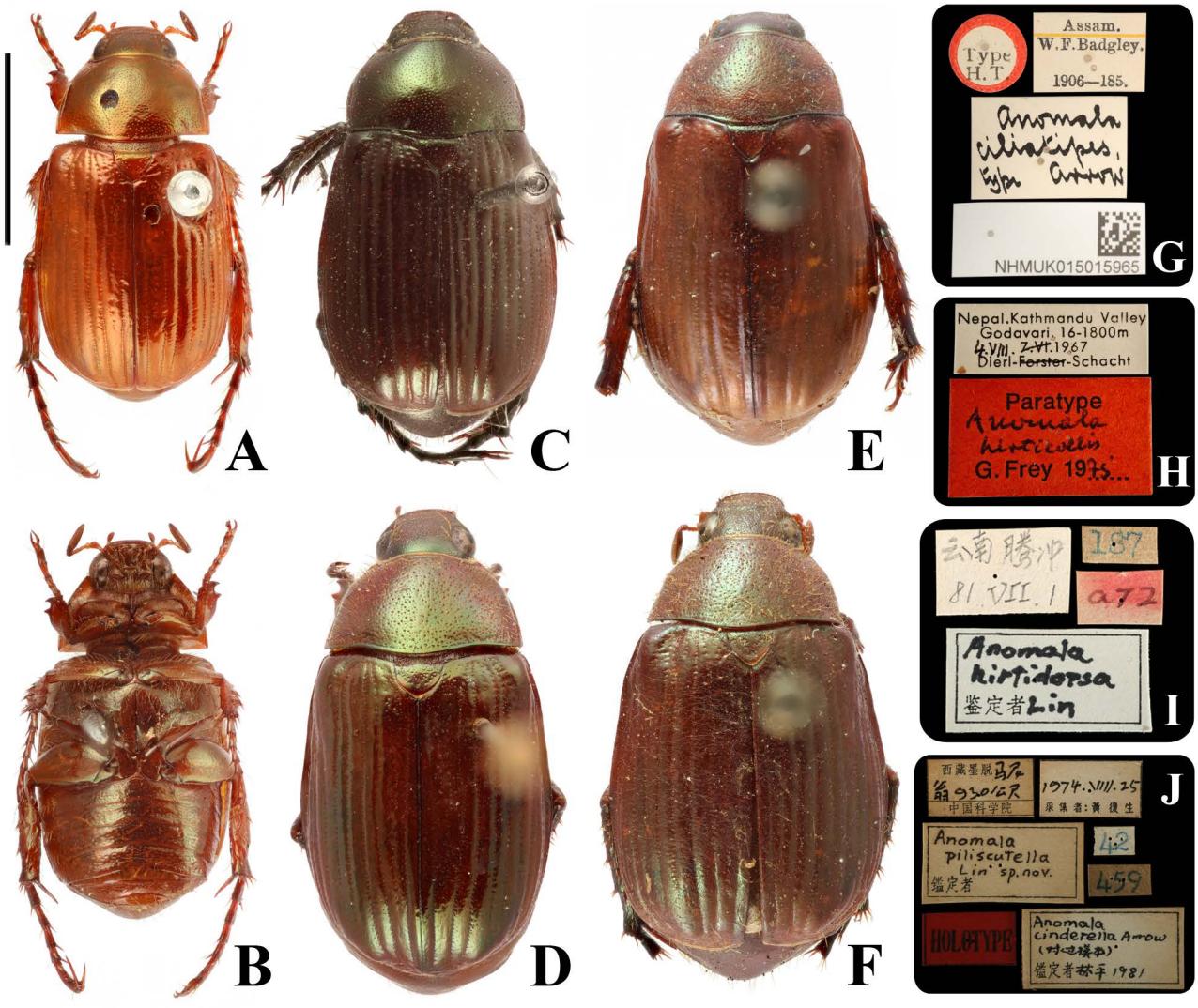

FIGURE 3. *Anomala* spp., habitus and labels: **A–B, G** *A. ciliatipes* Arrow, 1917 (lectotype) **C** *A. ciliatipes* (female, Khasi) **D, H** *A. hirticollis* Frey, 1975 (paratype male, junior synonym of *A. cinderella* Arrow, 1917) **E, I** *A. hirtidorsa* Lin, 1999 (paratype? male) **F, J** *A. piliscutella* Lin, 1981 (holotype). **A, C–F** habitus in dorsal view **B** habitus in ventral view **G–J** labels. Scale bar = 5 mm.

Diagnosis (Table 1). Disc of pronotum with moderately dense, moderately long and erect setae. Lower margin of lower branch of inner protarsal claw slightly convex in apical third in males. Pygidium with very dense and rugose striations. Parameres encircling a circular area in apical half, ventral plate slightly longer than parameres, apical half wider than apical third of parameres in lateral view; ventrally ridged in apical half, with irregular teeth. Female with apical protibial tooth tongue-shaped, extending to middle of protarsomere 3. Body length ca. 12–14 mm.

Remarks. This species is newly recorded from Bhutan. There are no obvious differences in the male genitalia between specimens from various localities. Arrow (1917) mentioned only males from two different localities when describing *A. cinderella*. The specimen from Gopaldhara appears to have lost part of its original label, which likely included the data "Rungbong Valley, 6300 ft., H. Stevens". Therefore, the male from Nagri Spur is designated here as the lectotype to fix taxonomic stability. Frey (1975) mentioned four females ("4♀♀") as type material of *A. hirticollis* and deposited them in ZSM and NMBF. However, I found three males and one female there instead. Frey might have miswritten "4♂♀" in this case.

Distribution. Bhutan (new record); India (West Bengal); Nepal.

Anomala liuhaoyii Zhao, sp. nov. 吴祎异丽金龟

https://zoobank.org/F61D1F4B-27CA-49A6-887F-F7D06F467AE1

Figs 1A, 2A, 4A, 5B, 5G, 6A, 6G, 6M

Type material (49♂♂, 44♀♀). **Holotype.** ♂ (SCAU) "CHINA: TIBET, Nyingchi City, Beibeng, Gelin Vill. [格林村], 1768 m, 29.21315309°N, 95.17111894°E, 2023.VII.13-14, Hao-Yi Liu leg." **Paratypes.** 7♂♂, 5♀♀ (ZMPC) "CHINA: TIBET, Nyingchi City, Beibeng, Gelin Vill., 1768 m, 29.21315309°N, 95.17111894°E, 2023.VII.13-14, Hao-Yi Liu leg."; 20♂♂, 19♀♀ (ZMPC) "CHINA: TIBET, Nyingchi City, Beibeng Township, Gelin Vill., 1753 m, 29.214870°N, 95.169272°E, 18–30.VII.2023 (at light), Yao-Nan Zhang leg."; 21♂♂, 20♀♀ (ZYPC) "CHINA: TIBET, Nyingchi City, Beibeng Township, Gelin Vill., 1753 m, 29.214870°N, 95.169272°E, 18–30.VII.2023 (at light), Yao-Nan Zhang leg.".

Description. Male (holotype). Body shape elongated ovoid, strongly convex.

Color. Entirely dark brown with metallic and blackish green luster, weaker on scutellum, elytra and abdominal ventrites; protibial teeth reddish brown, antennomeres 1–6 yellowish brown. Sometimes body tinged with some coppery luster.

Head. Greatest length/width of clypeus = 1/2.5, subtrapezoidal, anterior margin nearly straight, anterior corner obsolete and curved; anterior margin weakly reflexed, that of ventral margin strongly produced distally; surface with very dense, large and irregular punctures. Frontoclypeal suture straight, hardly elevated. An inverted triangular area on frons punctate as clypeus, other portions of frons and vertex with dense and large punctures. Interocular distance/maximum head width = 0.64. Length of antennal club approximately 0.7 times as long as combined length of antennomeres 1–6. Inner margin of eye with several moderately long setae.

***Pronotum*.** Sides weakly curved and strongly convergent anteriad. Anterior angle right-angled and protruding, posterior angle broadly rounded and not protruding. Posterior marginal line almost not interrupted before scutellum, other marginal lines complete. Lateral fovea indistinct, situated slightly before mid-length of pronotum, with an additional large impression on midpoint of lateral margin. Disc with dense, small and large punctures. Disc with moderately dense, moderately long and erect setae, lateral margin with several long and erect setae.

Scutellum semielliptical, apex weakly produced; glabrous, disc with moderately dense and small punctures, weakly impressed along midline.

Elytra. Intervals weakly elevated forming costae, subsutural interstice widest, elevated only at lateral third; strial punctures dense, large and fine, subsutural interstice irregularly punctate in medial two thirds, interstice 2 with a few small punctures basally, interstice 3 with a short secondary striae posterior to humeral protuberance; elevated

intervals generally smooth, bearing sparse and minute punctures. Humeral and apical protuberances prominent. Lateral carina weakly expanded before apical fifth, widest along metacoxa. Epipleuron with several sparse and short setae in basal third. Marginal membrane broad, appearing from anterior margin of metacoxa to apex.

Abdomen. Propygidium with very dense, transverse and irregular striation. Pygidium moderately tumid preapically, surface with dense, transverse and rugose striation encircling greatest tumidity, with sparse and short setae laterally and distally and a transverse row of long setae along apical margin. Abdominal ventrites 1–4 strongly carinate laterally, punctures at medial portion moderately dense, gradually transverse and denser laterad, rugostriolate laterally; ventrites 1–5 each bearing several recumbent and moderately long setae laterally, ventrite 5 with a transverse and sparse row of long setae, row of ventrite 6 present at posterior margin.

Ventral thoracic surface. Hypomeron finely longitudinally striolate, with moderately dense and moderately long setae. Ventral mesothoracic surface densely rugostriolate, with dense and short setae. Ventral metathoracic surface with dense, large and annulated punctures, gradually elongated and confluent laterally, with dense and long setae, medial portions with sparse and small punctures as well as few minute to short setae. Metacoxa punctate as lateral metasternum but bearing moderately long setae. Width of mesofemur approximately 5.0 times as wide as narrowest extremity of mesosternum.

Legs. Protibia bidentate, both teeth distinct; apical tooth extending to middle of protarsomere 2. Protarsomeres thickened. Inner spur inserted slightly proximal of subapical tooth. Inner protarsal claw and outer mesotarsal claw split apically, lower branch three times wider than upper branch in protarsal claw and two times wider in mesotarsal claw, both branches almost equal in length; lower margin of lower branch of inner protarsal claw convex at incision, forming a notch internobasally; outer metatarsal claw slightly longer than inner one. Each tarsomere 5 with a blunt internomedial denticle, that of mesotarsomere 5 small. Ventral surface of mesofemur with a transverse row of dense and long setae at external margin, a row of long, slightly robust setae submedially, additional dense and long setae present between former two rows; ventral surface of metafemur generally glabrous; meso- and metatibia each bearing two transverse groups of robust setae emerging from a carina, basal third with some randomly arranged and shorter robust setae.

Male genitalia. Parameres symmetrical and glabrous, encircling a circular area in apical half, dorsally connected by a broad membrane in basal half; ventral plate longer than parameres, broad and grooved dorsally, distinctly emarginated apically, ventral margin strongly serrated.

Female. Greatest length/width of clypeus = 1/2.7, generally more subtrapezoidal, lateral margin less convergent and anterior corner more distinct. Length of antennal club approximately 0.8 times as long as combined length of antennomeres 1–6. Lateral margin of pronotum strongly curved and more convergent in anterior half, surface strongly bulging along lateral portions. Elytral interstices 2 and 3 each bearing a secondary stria on basal two fifths. Pygidium more triangular in shape, surface weakly tumid. Apical protibial tooth tongue-shaped, extending to middle of protarsomere 3; inner spur inserted at mid-length of protibia; protarsomeres thin, internomedial protuberance of protarsomere 5 small; lower branch of protarsal claw shorter and slightly wider than upper branch, its lower margin not convex; metatibia wider and more fusiform than in male. Ultimate abdominal ventrite longer than in male medially.

Measurements. Body length: 12.2–13.8 mm in males (holotype 12.2 mm) and 12.4–13.7 mm in females, greatest width: 6.9–7.8 mm in males (holotype 6.9 mm) and 6.9–7.8 mm in females.

Differential diagnosis (Table 1). *Anomala liuhaoyii* **sp. nov.** is similar to *A. cinderella* Arrow, 1917. It can be distinguished by the stronger greenish luster and the larger body size, as well as the wider and apically emarginated ventral plate (narrower and simply pointed in *A. cinderella*).

Etymology. This new species is named after one of its collectors, Mr. Hao-Yi Liu (Zhengzhou, China), who originally presented the new species to the author.

Distribution. Only known from Gelin Village in Beibeng Township, Motuo County, southeastern part of Xizang Autonomous Region, China.

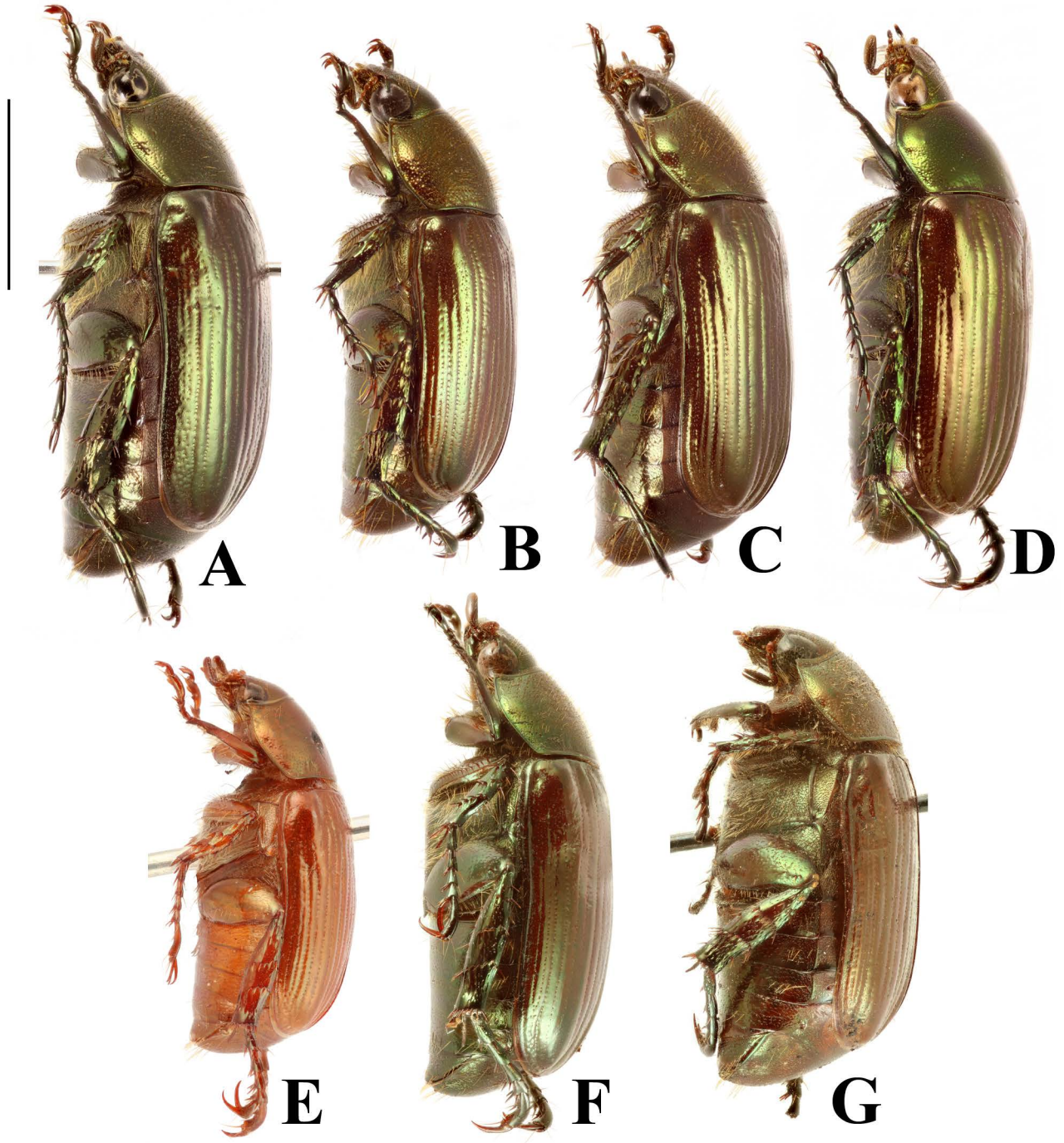

FIGURE 4. Habitus of *Anomala* spp., male in lateral view: **A** *A. liuhaoyii* Zhao, **sp. nov.** (holotype, Gelin) **B** *A. pemako* Zhao, **sp. nov.** (holotype, Motuo) **C** *A. piliscutella* Lin, 1981 (Motuo) **D** *A. dulongensis* Zhao, **sp. nov.** (holotype, Dulongjiang) **E** *A. ciliatipes* Arrow, 1917 (lectotype, Assam) **F** *A. hirtidorsa* Lin, 1999 (Xima) **G** *A. cinderella* Arrow, 1917 (Maria Basti). Scale bar = 5 mm.

Anomala pemako Zhao, sp. nov. 墨脱异丽金龟

https://zoobank.org/FDF9B302-BEA1-41E2-B3B0-BAADE639DF8A

Figs 1C, 2C, 4B, 5I, 6C, 6I, 6O

Type material (46♂♂, 26♀♀). **Holotype.** ♂ (SCAU) "CHINA: TIBET, Nyingchi City, Medog County, 1143 m, 29°19′22.62″N, 95°20′1.65″E, 26.VII.2022 (at light) Chuan-Tao Qu leg." **Paratypes.** 4♂♂, 3♀♀ (ZMPC) "CHINA:

TIBET, Nyingchi City, Medog County, 1143 m, 29°19′22.62″N, 95°20′1.65″E, 26.VII.2022 (at light) Chuan-Tao Qu leg."; 1♀ (ZMPC) "CHINA: TIBET, Nyingchi City, Medog County, 1010 m, 29°19′50.19″N, 95°20′29.33″E, 21-22.VII.2022 (at light) Chuan-Tao Qu leg."; 3♂♂, 4♀♀ (ZMPC) "CHINA: Xizang, Nyingchi City, Medog County, 1106 m, 29°19′41.01″N, 95°19′55.25″E 2022.VIII.16, light trap, Yu-Chen Zheng leg."; 1♂, 1♀ (ZMPC) "CHINA: Tibet, Nyingchi, Medog 2023.VIII.10 Yong-Xiang Hou leg."; 1♂ (ZMPC) "Xizang Medog County Town, 2019.vii.10–13, Ren-Zhi Zhang 1300m"; 2♂♂, 2♀♀ (ZMPC) "Xizang Medog, 2020.VII.29, Yi-Ming Zhang"; 3♂♂ (ZMPC) "CHINA: Xizang, Nyingchi, Medog County Town N 29°20′N, E 95°20′ 2020.VIII.14–15, light trap, Xian-Yi Wang"; 11♂♂, 5♀♀ (ZMPC) "CHINA: TIBET, Nyingchi City, Medog Co., Beibeng, 864 m, 29.24807910°N, 95.18061479°E, 2023.VII.12, Hao-Yi Liu leg."; 2♂♂, 2♀♀ (ZMPC) "CHINA: TIBET, Nyingchi City, Medog Co., 96k Marangkang vill. [玛让康村], 1305 m, 29.56287354°N, 95.46563172°E, 2023.VII.17, Hao-Yi Liu leg."; 1♂ (ZMPC) "CHINA: TIBET, Nyingchi City, Medog Co., Liberation Bridge, 680 m, 2023.VIII.20, Qi, Liu et Mu leg."; 15♂♂, 7♀♀ (CZPC) "CHINA, Tibet, Linzhi area Motuo county, Hanmi 2200m, vii.-viii. 2013 local collector leg."; 2♂♂, 1♀ (ARPC) "CHINA, Tibet, Linzhi area Motuo county, Hanmi 2200m, VII.-VIII 2013 loc. coll.".

Description. Male (holotype). Body shape elongated ovoid, strongly convex.

Color. Entirely reddish brown with metallic and greenish luster; all tarsi and antennal club slightly darker. Sometimes body darker and greenish luster stronger except for elytra.

Head. Greatest length/width of clypeus = 1/2.4, subtrapezoidal, anterior margin nearly straight, anterior corner obsolete and curved; disc weakly bulging, anterior margin weakly reflexed, that of ventral margin strongly produced distally; surface with very dense, large and irregular punctures, usually confluent. Frontoclypeal suture straight, hardly elevated. Base of frons with very dense and large punctures, other portions of frons and vertex with dense and small punctures. Interocular distance/maximum head width = 0.58. Length of antennal club approximately 0.7 times as long as combined length of antennomeres 1–6. Inner margin of eye with several moderately long setae.

***Pronotum*.** Sides weakly curved and strongly convergent anteriad. Anterior angle right-angled and protruding, posterior angle broadly rounded and not protruding. Posterior marginal line interrupted before scutellum, other marginal lines complete. Lateral fovea hardly recognizable, surface bulging along lateral portions. Disc with dense, small and large punctures. Disc with moderately dense, moderately long and erect setae, anterior third and lateral margin with several long and erect setae.

Scutellum semielliptical, apex weakly produced. Disc with moderately dense and small punctures, sometimes bearing one or two short setae basally.

Elytra. Intervals weakly elevated forming costae, subsutural interstice widest, elevated only at lateral third; strial punctures dense, large and fine, subsutural interstice with two rows of punctures united into one in basal half, then frequently doubled in apical half, interstice 2 punctate at basal fifth, interstice 3 bearing a complete secondary stria with irregularly doubled punctures in basal half; elevated intervals generally smooth, bearing sparse and minute punctures. Humeral and apical protuberances prominent. Lateral carina weakly expanded before apical fifth, widest along metacoxa. Epipleuron with several sparse and short setae in basal third. Marginal membrane broad, appearing from anterior margin of metacoxa to apex.

Abdomen. Propygidium with very dense, transverse and irregular striation. Pygidium moderately tumid preapically, surface with dense, transverse and rugose striation encircling greatest tumidity, with sparse and short setae laterally and distally and a transverse row of long setae along apical margin. Abdominal ventrites 1–4 strongly carinate laterally, punctures at medial portion moderately dense and transverse, incompletely annulated laterally and confluent at lateral border; ventrites 1–5 each bearing several recumbent and moderately long setae laterally, ventrite 5 with a transverse and sparse row of long setae, row of ventrite 6 present at posterior margin.

Ventral thoracic surface. Hypomeron finely longitudinally striolate, with moderately dense and moderately long setae. Ventral mesothoracic surface densely rugostriolate, with dense and short setae. Ventral metathoracic surface with dense, large and annulated punctures, gradually elongated and confluent laterally, with dense and long setae, medial portions with sparse and small punctures as well as few minute to short setae. Metacoxa punctate as

lateral metasternum but bearing moderately long and recumbent setae. Width of mesofemur approximately 5.0 times as wide as narrowest extremity of mesosternum.

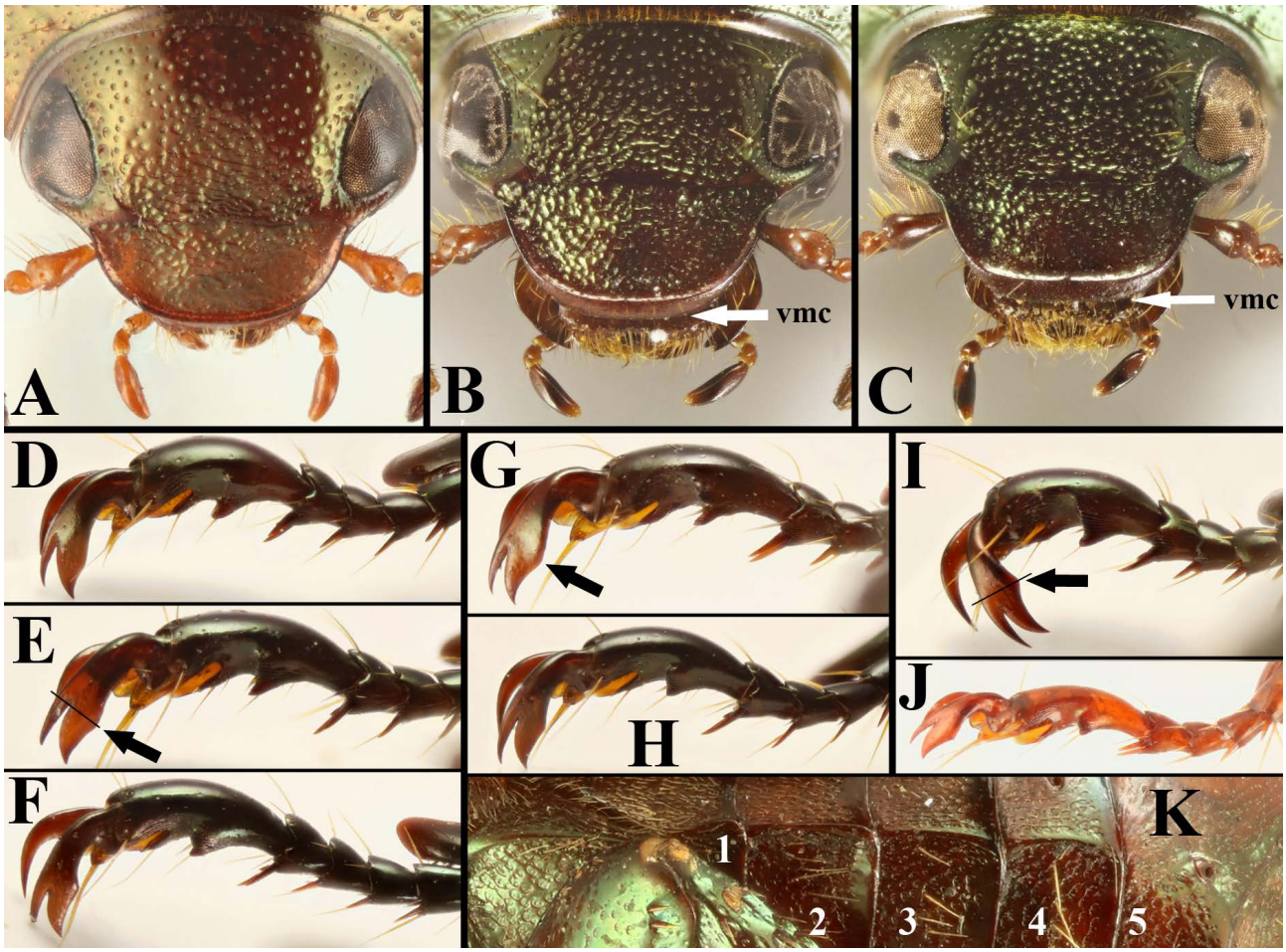

FIGURE 5. Details of *Anomala* spp., male: **A, J** *A. ciliatipes* Arrow, 1917 (lectotype, Assam) **B, G** *A. liuhaoyii* Zhao, **sp. nov.** (paratype, Gelin) **C, F** *A. dulongensis* Zhao, **sp. nov.** (holotype, Dulongjiang) **D** *A. cinderella* Arrow, 1917 (Darjeeling) **E** *A. piliscutella* Lin, 1981 (Motuo) **H** *A. hirtidorsa* Lin, 1999 (Banggunjianshan) **I** *A. pemako* Zhao, **sp. nov.** (holotype, Motuo) **K** *A. cinderella* (Maria Basti). **A–C** head in dorsal view **D–J** protarsus **K** lateral margin of abdominal ventrites 1–5. Abbreviation: vmc, ventral margin of clypeus. Not to scale.

Legs. Protibia bidentate, both teeth distinct; apical tooth extending to middle of protarsomere 2. Protarsomeres thickened. Inner spur inserted slightly proximal of subapical tooth. Inner protarsal claw and outer mesotarsal claw split apically, lower branch three times wider than upper branch in protarsal claw and two times wider in mesotarsal claw, both branches almost equal in length; lower margin of lower branch of inner protarsal claw convex at mid-length, forming a notch internobasally; outer metatarsal claw slightly longer than inner one. Each tarsomere 5 with a blunt internomedial denticle, that of mesotarsomere 5 small. Ventral surface of mesofemur with a transverse row of dense and long setae at external margin, a row of long, slightly robust setae submedially, additional dense and long setae present between former two rows; ventral surface of metafemur with several moderately long setae submedially; meso- and metatibiae each bearing two transverse groups of robust setae emerging from a carina, basal third with some randomly arranged and shorter robust setae.

Male genitalia. Parameres symmetrical and glabrous, slender, medial margins nearly straight in apical half, with a strong proximal convexity at ventral margin; ventral plate slightly longer than parameres, narrow and slender, bent downwards apically, ventral margin with several distant and small teeth.

Female. Greatest length/width of clypeus = 1/2.4, generally more subtrapezoidal, lateral margin less

convergent and anterior corner more distinct. Lateral margin of pronotum strongly curved and more convergent in anterior half, weakly convergent posteriad in posterior half. Elytral interstices 2 and 3 each bearing a secondary stria on basal two fifths. Pygidium more triangular in shape, surface weakly tumid. Apical protibial tooth tongue-shaped, extending to base of protarsomere 3; inner spur inserted at mid-length of protibia; protarsomeres thinner, internomedial protuberance of protarsomere 5 small; lower branch of protarsal claw shorter and slightly wider than upper branch, its lower margin not convex; metatibia wider and more fusiform than in male. Ultimate abdominal ventrite longer than in male medially.

Measurements. Body length: 10.1–11.5 mm in males (holotype 11.0 mm) and 9.6–11.2 mm in females, greatest width: 5.8–6.5 mm in males (holotype 6.2 mm) and 5.6–6.4 mm in females.

Differential diagnosis (Table 1). *Anomala pemako* **sp. nov.** is similar to *A. cinderella* Arrow, 1917 and *A. liuhaoyii* **sp. nov.** It can easily be distinguished by the strong proximal protrusion at the ventral margin of the parameres. The ventral plate of aedeagus is thinner than that of *A. cinderella* and *A. liuhaoyii*, with widely spaced small teeth (dense and irregular in the other two species).

Etymology. This name (noun in apposition) is derived from Pemako, the former name of Mêdog County in Tibetan, where the new species occurs.

Distribution. Known from Motuo (Mêdog) County, southeastern part of Xizang Autonomous Region, China.

Anomala piliscutella Lin, 1981 毛盾异丽金龟

Figs 1E, 2E, 3F, 3J, 4C, 5E, 6E, 6K, 6Q, 7D, 7H, 7L

Anomala piliscutella Lin, 1981: 361, 380, fig. 13 [original description]; Lin 1982: 36 [junior synonym of *Anomala cinderella* Arrow, 1917]; Zorn 2005: 310 [valid species].

Type material. Holotype. ♂ (IZGAS) “Xizang, Medog, Maniweng [西藏墨脱马尼翁] 930 m Chinese Academy of Science // 1974.VIII.25 Collector: Fu-Sheng Huang [采集者: 黄復生] // *Anomala piliscutella* Lin sp. nov. identifier [鑑定者] // 42 // 459 // HOLOTYPE // *Anomala cinderella* Arrow (compared to type) [(对过模本)] identifier Ping Lin [鑑定者 林平] 1981”.

Additional material (11♂♂, 7♀♀)**.** 3♂♂, 3♀♀ (ZMPC) “CHINA: TIBET, Nyingchi City, Medog County, 1143 m, 29°19′22.62″N, 95°20′1.65″E, 26.VII.2022 (at light) Chuan-Tao Qu leg.”; 1♂, 1♀ (ZMPC) “CHINA: Xizang, Nyingchi City, Medog County, 1106 m, 29°19′41.01″N, 95°19′55.25″E 2022.VIII.16, light trap, Yu-Chen Zheng leg.”; 1♂ (ZMPC) “CHINA: Tibet, Nyingchi, Medog 2023.VIII.10 Yong-Xiang Hou leg.”; 3♂♂, 1♀ (ZMPC) “CHINA: TIBET, Nyingchi City, Medog Co., Beibeng, 864 m, 29.24807910°N, 95.18061479°E, 2023.VII.12, Hao-Yi Liu leg.”; 2♂♂, 2♀♀ (ZMPC) “CHINA: TIBET, Nyingchi City, Medog Co., 96k Marangkang vill., 1305 m, 29.56287354°N, 95.46563172°E, 2023.VII.17, Hao-Yi Liu leg.”; 1♂ (CZPC) “CHINA, Tibet, Linzhi area Motuo county, Hanmi 2200m, vii.-viii. 2013 local collector leg.”.

Diagnosis (Table 1). Disc of pronotum with moderately dense, moderately long and erect setae. Scutellum with several short setae. Lower margin of lower branch of inner protarsal claw convex at the base of apical incision in males. Pygidium with dense and rugose striations. Parameres encircling a long and subtriangular area in apical half, laterally slender and bent downward in apical half; ventral plate gradually widened from apical third to preapical part, apex acute, with a large ventral tooth in middle. Female with apical protibial tooth tongue-shaped, extending to anterior margin of protarsomere 3. Body length ca. 12–14 mm.

Remarks. This species is sympatric with *A. pemako* **sp. nov.** in several localities of Medog County, which may led to confusion. However, the apical tooth of the protibia is thinner in both sexes of *A. piliscutella* compared to that of *A. pemako*. The convexity found at the lower margin of the lower branch of the inner protarsal claw in males is situated at the base of the incision in *A. piliscutella* (Fig. 5E) but at mid-length in *A. pemako* (Fig. 5I).

Distribution. Known from Motuo (Mêdog) County, southeastern part of Xizang Autonomous Region, China.

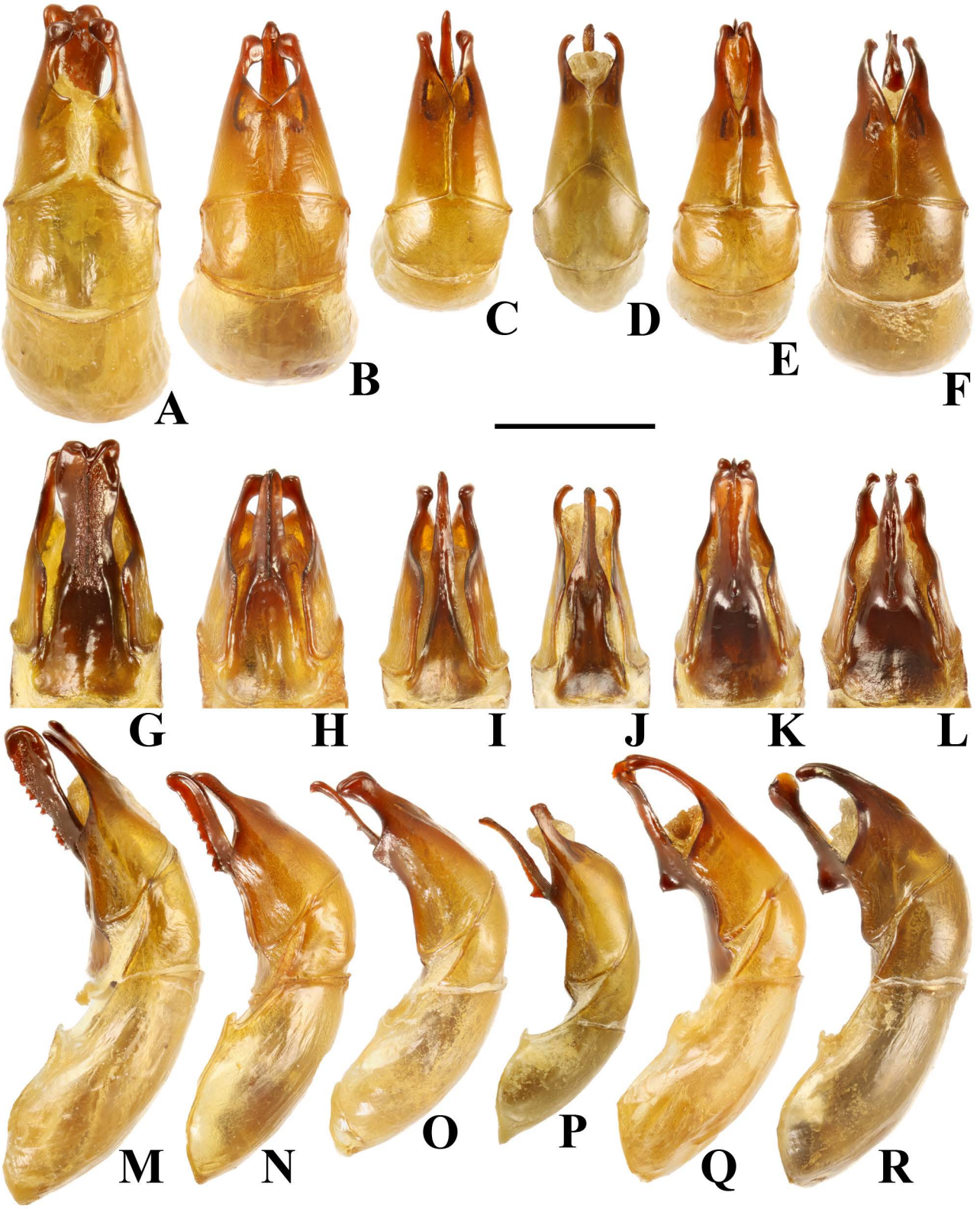

FIGURE 6. Male genitalia of *Anomala* spp.: **A, G, M** *A. liuhaoyii* Zhao, **sp. nov.** (holotype, Gelin) **B, H, N** *A. cinderella* Arrow, 1917 (Darjeeling) **C, I, O** *A. pemako* Zhao, **sp. nov.** (holotype, Motuo) **D, J, P** *A. hirtidorsa* Lin, 1999 (Banggunjianshan) **E, K, Q** *A. piliscutella* Lin, 1981 (Motuo) **F, L, R** *A. dulongensis* Zhao, **sp. nov.** (holotype, Dulongjiang). **A–F** dorsal view **G–L** ventral view **M–R** right lateral view. Scale bar = 2 mm.

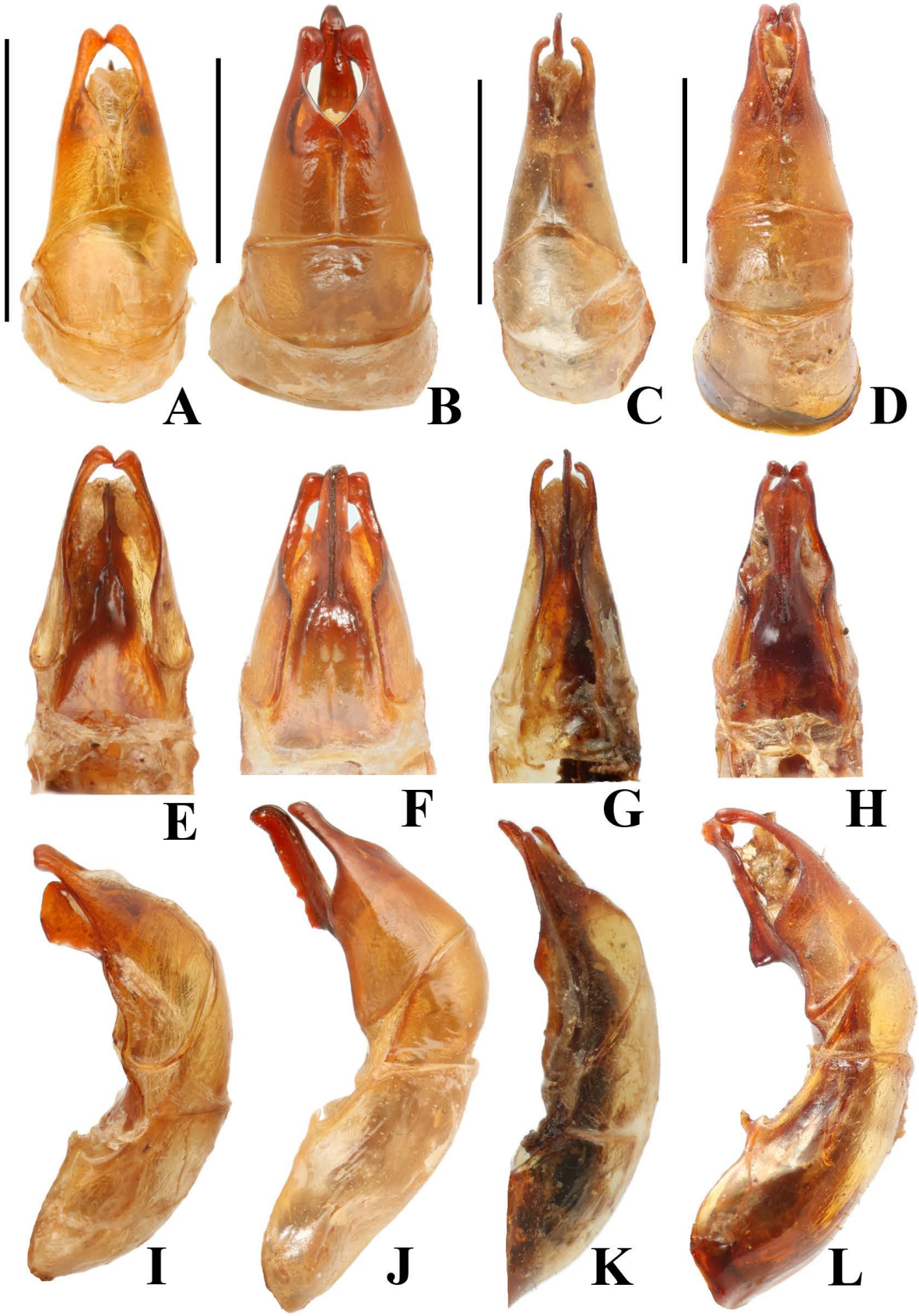

FIGURE 7. Male genitalia of *Anomala* spp.: **A, E, I** *A. ciliatipes* Arrow, 1917 (lectotype, Assam) **B, F, J** *A. hirticollis* Frey, 1975 (paratype, Godavari, junior synonym of *A. cinderella* Arrow, 1917) **C, G, K** *A. hirtidorsa* Lin, 1999 (paratype, Tengchong) **D, H, L** *A. piliscutella* Lin, 1981 (holotype, Maniweng). **A–D** dorsal view **E–H** ventral view **I–L** right lateral view. Scale bar = 2 mm.

Anomala dulongensis Zhao, sp. nov. 独龙异丽金龟

https://zoobank.org/4CD7D0B8-FA1A-433D-90CA-7170FD97E897

Figs 1F, 2F, 4D, 5C, 5F, 6F, 6L, 6R

Type material (7♂♂, 8♀♀)**. Holotype.** ♂ (SCAU) "CHINA: Yunnan, Nujiang pref., Gongshan Co., Dulongjiang Tp. near Maku [马库], 1862 m 27.678995°N, 98.299091°E 2023.VII.19, Zhi-Chao Zhang leg." **Paratypes.** 2♂♂, 1♀ (ZMPC) "CHINA: Yunnan, Nujiang pref., Gongshan Co., Dulongjiang Tp. near Maku, 1862 m 27.678995°N, 98.299091°E 2023.VII.19, Zhi-Chao Zhang leg."; 1♂, 7♀♀ (ZMPC) "CHINA: Yunnan, Nujiang pref., Pukawang [普卡旺] to Dulongjiang Township, 2024.VIII.5–6, Jia-Xin Chen leg."; 1♂ (ZMPC) "CHINA-Yunnan, Dulongjiang Township, Bapo [巴坡], 2023.VII.15-17, Tian-Tian Yu leg. // LSC1"; 2♂♂ (ZMPC) "CHINA-Yunnan, Dulongjiang Township, Bapo, 2023.VII.25, Tian-Tian Yu leg.".

Description. Male (holotype). Body shape elongated ovoid, strongly convex.

Color. Entirely reddish brown with strongly metallic and greenish luster, weaker upon elytra and femora; protibial teeth red, antennomeres 1–6 yellowish brown.

Head. Greatest length/width of clypeus = 1/3, subtrapezoidal, anterior margin nearly straight, anterior corner obsolete and curved; disc weakly bulging, anterior margin weakly reflexed, that of ventral margin strongly produced distally; surface with very dense, large and irregular punctures, usually confluent. Frontoclypeal suture slightly bisinuate and elevated. Base of frons punctate as clypeus, other portions of frons and vertex with dense and small punctures. Interocular distance/maximum head width = 0.59. Length of antennal club approximately 0.75 times as long as combined length of antennomeres 1–6. Inner margin of eye with several moderately long setae.

Pronotum. Sides weakly curved, weakly convergent in posterior half, strongly convergent anteriad in anterior half. Anterior angle right-angled and protruding, posterior angle broadly rounded and not protruding. Posterior marginal line shortly interrupted before scutellum, other marginal lines complete. Lateral fovea hardly recognizable, with a small impression at mid-length of lateral margin, surface not bulging along lateral portions. Disc with dense and small punctures. Disc generally glabrous, anterior and lateral margins with several long and erect setae.

Scutellum almost triangular, lateral margins weakly convex. Glabrous, disc with moderately dense and small punctures.

Elytra. Intervals rather weakly elevated, subsutural interstice widest; strial punctures dense and small, subsutural interstice with two rows of punctures united into one in basal half, interstices 2 and 3 punctate each bearing several distant punctures at basal fourth; elevated intervals generally smooth, bearing sparse and minute punctures. Humeral and apical protuberances prominent. Lateral carina weakly expanded before apical fifth, widest along metacoxa. Epipleuron with several sparse and short setae in basal two thirds. Marginal membrane broad at posterior margin, appearing from mid-length of lateral margin of metacoxa to apex.

Abdomen. Propygidium with very dense, transverse and irregular striation. Pygidium moderately tumid preapically, surface with dense, transverse and rugose striation encircling greatest tumidity, with sparse and short setae laterally and distally and a transverse row of long setae along apical margin. Abdominal ventrites 1–4 strongly carinate laterally, punctures at medial portion moderately dense and transverse, incompletely annulated laterally and confluent at lateral border; ventrites 1–5 each bearing several recumbent and moderately long setae laterally, ventrite 5 with a transverse and sparse row of long setae, row of ventrite 6 present at posterior margin.

Ventral thoracic surface. Hypomeron finely longitudinally striolate, with moderately dense and moderately long setae. Ventral mesothoracic surface densely rugostriolate, with dense and short setae. Ventral metathoracic surface with dense, large and annulated punctures, gradually elongated and confluent laterally, with dense and long setae, medial portions with sparse and small punctures as well as few minute to short setae. Metacoxa punctate as lateral metasternum but bearing moderately long and recumbent setae. Width of mesofemur approximately 6.5 times as wide as narrowest extremity of mesosternum.

Legs. Protibia bidentate, both teeth distinct; apical tooth extending to middle of protarsomere 2. Protarsomeres

thickened. Inner spur inserted slightly proximal of subapical tooth. Inner protarsal claw and outer mesotarsal claw split apically, lower branch three times wider than upper branch in protarsal claw and two times wider in mesotarsal claw, both branches almost equal in length; lower margin of lower branch of inner protarsal claw convex at mid-length, forming a notch internobasally; outer metatarsal claw slightly longer than inner one. Each tarsomere 5 with a blunt internomedial denticle, that of mesotarsomere 5 small. Ventral surface of mesofemur with a transverse row of dense and long setae at external margin, a row of long setae submedially, additional moderately dense and long setae present between fomer two rows; ventral surface of metafemur generally glabrous; meso- and metatibiae each bearing two transverse groups of robust setae emerging from a carina, basal fourth with some randomly arranged and shorter robust setae.

Male genitalia. Parameres symmetrical and glabrous, slender and bent downward in apical half; ventral plate equally as long as parameres, gradually narrowed towards apex in ventral view, apically broadened in lateral view, with a strong ventral tooth at middle.

Female. Greatest length/width of clypeus = 1/2.6, strongly subtrapezoidal, lateral margin weakly convergent and anterior corner more distinct. Length of antennal club approximately 0.7 times as long as combined length of antennomeres 1–6. Lateral margin of pronotum strongly curved and more convergent in anterior half, weakly convergent posteriad in posterior half. Elytral interstices 2 and 3 each bearing a secondary stria on basal two fifths. Pygidium more triangular in shape, surface weakly tumid. Apical protibial tooth tongue-shaped, extending to base of protarsomere 3; inner spur inserted at mid-length of protibia; protarsomeres thin, internomedial protuberance of protarsomere 5 small; lower branch of protarsal claw shorter and slightly wider than upper branch, its lower margin not convex. Ultimate abdominal ventrite longer than in male medially.

Measurements. Body length: 11.1–12.2 mm in males (holotype 12.2 mm) and 10.6–12.4 mm in females, greatest width: 5.7–6.7 mm in males (holotype 6.7 mm) and 6.0–6.8 mm in females.

Differential diagnosis (Table 1). Judging from the shape of male genitalia, *Anomala dulongensis* **sp. nov.** is most similar to *A. piliscutella* Lin, 1981. Interestingly, this new species has a generally glabrous pronotum in contrast to the dense and erect setae found in *A. piliscutella* and most other species of this group. The ventral plate of the aedeagus is narrower than that of *A. piliscutella*. The vaginal sclerites of females appear to be indistinguishable.

Etymology. The name is derived from Dulongjiang, because all type specimens were collected along this river.

Distribution. Known from Dulongjiang Township, at the western border of Yunnan Province, China.

Anomala hirtidorsa Lin, 1999 毛背异丽金龟

Figs 1D, 2D, 3E, 3I, 4F, 5H, 6D, 6J, 6P, 7C, 7G, 7K

Anomala hirtidorsa Lin, 1999: 158, 167, fig. 4 [original description, type locality: “Yunnan, Tengchong”].

Type material. Paratype? 1♂ (IZGAS) “Yunnan Tengchong [云南 腾冲] 81.VII.1 // 187 // a37 // *Anomala hirtidorsa* identifier [鉴定者] Lin”.

Additional material (25♂♂, 28♀♀)**.** 2♂♂, 2♀♀ (ZMPC) “CHINA-YUNNAN, Baoshan, Tengchong (S. Gaoligongshan) 2014.VII.27–30 Zhi-Wei Dong”; 1♂, 1♀ (NHMW) “CHINA Yunnan env. Tengchong 10.-13.6.1993 E.Jendek & O.Sausa leg.”; 1♀ (CCPC) “CHINA. Yunnan, Baoshan, Tengchong, Cizhuhe 2015.VIII.1-2 leg. Y.-F. Hsu”; 1♂, 2♀♀ (ZMPC) “CHINA: Yunnan, Dehong, Longchuan, Mt. Banggunjianshan 1600m 2022.VIII.11 Yu-Chen Zheng, Zu-Qi Mai & Yue-Zheng Tu leg.”; 1♂ (CCPC) “Yunnan, Te-hung-chou, Lung-chuan, Mang-tung, 1770m, 2015, IX-17, Y.-T. Chung Leg. CCCC”; 1♀ (CCPC) “Yunnan, Te-hung-chou, Lung-chuan, Mang-tung, 1770m, 2015, IX-21, Y.-T. Chung Leg. CCCC”; 2♂♂, 1♀ (ZMPC) “CHINA: Yunnan, Dehong, Xima Town, Mt. Jianshan, 24°74′N, 97°42′E, 1800 m 2022.VIII.18 Yu-Chen Zheng leg.”; 10♂♂, 10♀♀ (ZMPC) “CHINA: Yunnan Prov. Dehong Pref., Yingjiang County, Xima Town, Hulukou, Menglaihe River, 1250 m, 2019. mid IV–early VI, light trap, Wei-Zong Yang leg.”; 2♂♂, 3♀♀ (ZMPC) “Yunnan, Dehong, Lianghe County, Mengyang Town, near Kazi Village Committee 1580m light trap 2020.VII.14 Chuan-Tao Qu leg.”; 3♂♂, 5♀♀ (ZMPC) “Yunnan, Dehong, Lianghe County, Mengyang Town, near Kazi Village Committee 1580m light trap

2020.VII.15 Chuan-Tao Qu leg.”; 4♂♂, 1♀ (ZMPC) “Yunnan, Dehong, Lianghe County, Mengyang Town, near Kazi Village Committee 1580m light trap 2020.VII.16 Chuan-Tao Qu leg.”; 2♀♀ (NMPC, CZPC) “CHINA: YUNNAN Prov. Tongbiguan vill., 24.-26.vi.2016 24°36.7′N, 97°39.4′E, 1340 m at light in village near river J. Hájek & J. Růžička leg.”.

Diagnosis (Table 1). Disc of pronotum with moderately dense, moderately long and erect setae. Lower margin of lower branch of inner protarsal claw convex at the base of apical incision in males. Pygidium with dense and rugose striations. Parameres arched in apical half medially, laterally straight in apical third; ventral plate slender and nearly straight in lateral view, a middle structure varying from a distinct tooth to a rounded convexity, sometimes absent. Female with apical protibial tooth tongue-shaped, extending to middle of protarsomere 3. Body length ca. 11–13 mm.

Remarks. The specimen from IZGAS matches the label data provided in the original description, except that the collector is missing and no type label is attached. Lin normally presents the label data of holotype clearly in his publications, and the absence of such information renders this specimen more plausibly a paratype. In addition, another series of several dozen specimens in IZGAS carries the same label data as this specimen but lacks Lin Ping’s identification label. Given that the original description mentioned 79 paratypes, these specimens are also very likely to belong to the paratype series. The parameres and the ventral plate of the male genitalia differ slightly between specimens from Tengchong and Dehong, but the taxonomic significance of these variations remains unclear.

Distribution. China (western Yunnan).

Anomala ciliatipes Arrow, 1917 环毛异丽金龟

Figs 3A–C, 3G, 4E, 5A, 5J, 7A, 7E, 7I

Anomala ciliatipes Arrow, 1917: 193 [original description, type locality: “Assam”].

Type material. Lectotype (hereby designated). ♂ (NHMUK) “Type H. T. // Assam. W. F. Badgley. 1906–185. // *Anomala ciliatipes*, Type Arrow // NHMUK015015965”.

Additional material (13♂♂, 2♀♀)**.** 1♂ (NHMUK) “♂ // ASSAM Khasi // 1930·271 // anomala ciliatipes arr. // 65 // NHMUK 016502934”; 1♂ (MNHN) “Assam // Ex. Musaeo H.W.BATES 1892 // G. J. Arrow Vidit 1907 // MUSÉUM PARIS 1952 COLL. R. OBERTHÜR”; 1♂ (MNHN) “Khasia Hills // G. J. Arrow Vidit 1907 // MUSÉUM PARIS 1952 COLL. R. OBERTHÜR”; 7♂♂, 1♀ (MNHN) “Khasia Hills”; 2♂♂ (ZMPC) “Khasia Hills”; 1♀ (SDEI) “Khasia Hills Assam // Anomala ciliatipes arrow ? E. Benderitter, det.”; 1♂ (CZPC) “N.E. India Meghalaya VII-97”.

Diagnosis (Table 1). Punctures on basal half of frons abruptly fine and sparse. Ventral margin of clypeus not produced. Disc of pronotum generally glabrous, with several long setae laterally. Lower margin of lower branch of inner protarsal claw convex at the base of apical incision in males. Pygidium with moderately dense and rugose striations. Parameres encircling a rhombic area in apical half, laterally striaght in apical half; ventral plate laterally flattened in apical third, apically broad and shorter than parameres in lateral view. Female with apical protibial tooth tongue-shaped, extending to base of protarsomere 4. Body length ca. 9–11 mm.

Remarks. Arrow (1917) did not explicitly state the number of type specimen in the original description. Therefore, the NHMUK specimen matching the original description is designated as the lectotype. I had documented a series of specimens from the other collections, which are mostly different from the lectotype by the dark brown integument (reddish brown in the lectotype and another specimen from MNHN labelled “Arrow Vidit”). The type locality “Assam” could refer to nowadays Assam and Meghalaya. Currently, Khasi Hills in Meghalaya is the only known more or less precise locality of this species. There is a female specimen from NHMUK labelled “63172 // Doherty // India Or Manipur // Fry Coll. 1905-100. // NHMUK 016503307” which is probably also this species. But male from Manipur remains unknown.

Distribution. India (Assam?, Meghalaya).

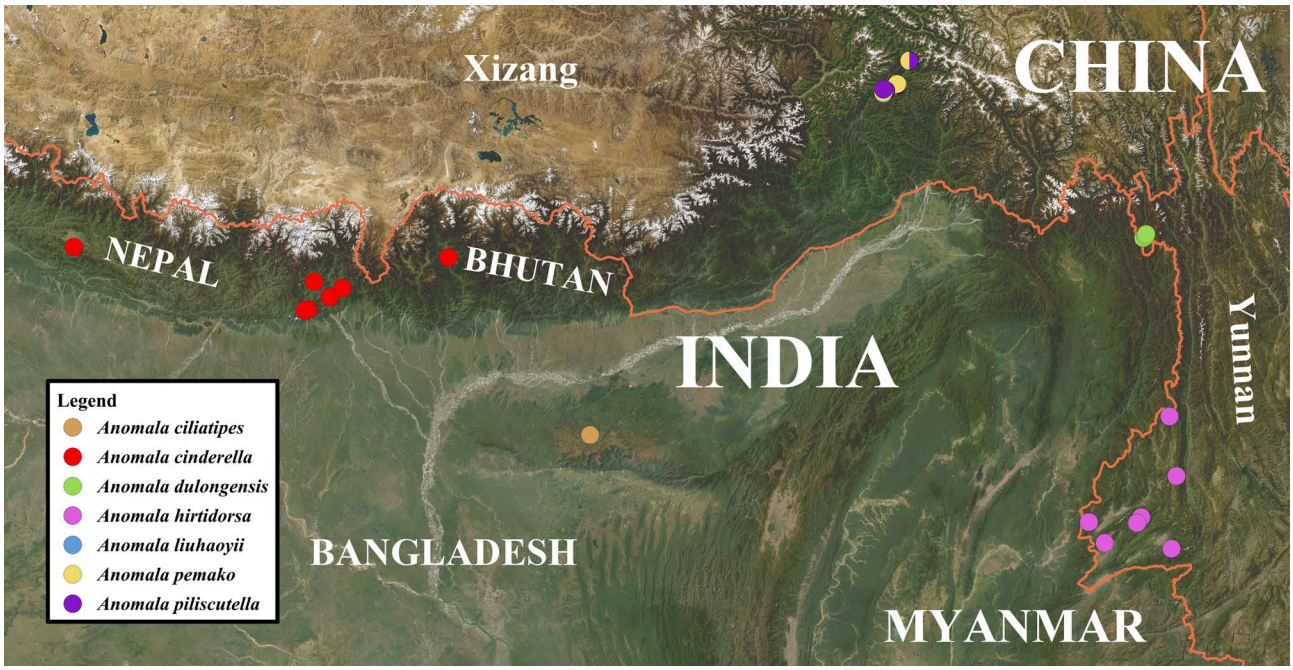

FIGURE 8. Distribution map of the *Anomala cinderella* group.

FIGURE 9. Distribution map of the *Anomala cinderella* group in Motuo County, Southeast Xizang, China.

Discussion

The discovery of new species brings the total number of *A. cinderella*-group species known from Medog County to three, two of which are found to occur sympatrically (Figs 8, 9). This finding breaks the previously recognized pattern of fragmented distribution and suggests a potentially high diversity of the group in the Himalayan region. Lin (1988) also reported "*Anomala cinderella*" from the following localities: Didong Village of Medog County, Dongqiong (probably near nowadays Shaqiong Village) of Zayü County, Xizang, Sichuan and Yunnan. I was not able to find these specimens in IZGAS, and their identities therefore cannot be verified.

The species with densely setose disc of pronotum constitute only a small proportion within the Asian *Anomala*. Apart from the *A. cinderella* group, most of these species are distributed in South China and Indochina, including *A. barbellata* Lin, 1996, *A. brevihirta* Lin, 1996, *A. capillula* Lin, 1996, *A. dayaoshanensis* Wang, 2020, *A. dongi* Wang, 2021, *A. graminea* Ohaus, 1905, *A. herbacea* Zorn, Kobayashi & Wada, 2017, *A. hirsutula* Nonfried, 1892, *A. hirsutoides* Lin, 1996, *A. itoi* Miyake, 1994, *A. iwasei* Miyake, 1994, *A. katsurai* Miyake, 1996, *A. kintaroi* Miyake, 1996, *A. lignea* Arrow, 1917, *A. montana* Lin, 1996, *A. muongtensis* Zhao & Pham, 2023, *A. myanmarensis* Keith, 2008, *A. pilosella* Fairmaire, 1898, *A. planicauda* Lin, 1996, *A. sapa* Miyake, 1994, *A. subpilosa* Lin, 1996, *A. subtomentella* Lin, 1996, *A. subtrinata* Lin, 1996, *A. thai* Miyake, 1994, *A. trichophora* Lin, 1996, *A. vietnamica* Miyake, 1996, *A. yanxui* Wang, 2022, *A. yemaoi* Wang, 2022 and *A. yunnana* Fairmaire, 1886. Many of them had been subsumed into the *Anomala hirsutula* species group (Lin 1996; Miyake 1994), which has setae also on the elevated elytral intervals. In addition, several species occurring in other Asian regions possess similar setose pronotum, such as *A. inconsueta* Ohaus, 1910, *A. inopinata* Ohaus, 1914 and *A. obesa* Candèze, 1869 occur in the Philippines, *A. eberti* Ohaus, 1911 in Lesser Sunda, as well as *A. octiescostata* Burmeister, 1844 and *A. sieversi* Heyden, 1887 in East Asia. Except for *A. eberti*, *A. octiescostata*, and *A. sieversi*, which possess hair-like setae, all the other species bear very dense, semierect to erect short setae. The setae of the *cinderella*-group are sparser and always erect. A transition between a setose and almost glabrous pronotal disc happens between the closely related *A. piliscutella* and *A. dulongensis*, suggesting a notable degree of morphological plasticity within *Anomala* species. Such abrupt transition may also present between the aforementioned species and other nearly glabrous ones, indicating that the density of pronotal setae should be treated with caution in taxonomic interpretations.

TABLE 1. Comparison of *Anomala cinderella* group species.

species	ventral margin of clypeus	disc of pronotum	male ventral margin of inner protarsal claw convex at	female apical protibial tooth extending to
A. cinderella	produced	densely setose	slightly distal to the claw incision	middle of protarsomere 3
A. liuhaoyii	produced	densely setose	the claw incision	middle of protarsomere 3
A. pemako	produced	densely setose	mid-length of the claw	base of protarsomere 3
A. piliscutella	produced	densely setose	the claw incision	anterior margin of protarsomere 3
A. dulongensis	produced	glabrous	slightly proximal to the claw incision	base of protarsomere 3
A. hirtidorsa	produced	densely setose	the claw incision	middle of protarsomere 3
A. ciliatipes	not produced	glabrous	the claw incision	base of protarsomere 4

Acknowledgements

I wish to extend my sincere gratitude to Yao-Nan Zhang, Hao-Yi Liu, Chuan-Tao Qu, Yu-Chen Zheng, Zhi-Chao Zhang, Chang-Chin Chen, Jia-Xin Chen, Tian-Tian Yu, Yong-Xiang Hou, Zhi-Hao Qi, Zhi-Wei Dong, Xian-Yi Wang, Ren-Zhi Zhang, Guido Sabatinelli and Carsten Zorn for kindly providing invaluable material for this study. Special thanks are also due to Olivier Montreuil (MNHN), Keita Matsumoto, Max Barclay (both NHMUK), Hua-Sheng Chen (IZGAS), Matthias Seidel (NHMW), Matthias Borer (NHMB & NMBF), Jiří Hájek (NMPC) and Vinicius Ferreira (SDEI) for accessing Rutelinae specimens under their curation; to Wei-Xin Liu (SCAU) and Dirk Ahrens (ZFMK) for supporting my research. I am deeply grateful to the financial support from the China Scholarship Council during my study in Germany. Kaoru Wada and Hao Xu are also acknowledged for improving the manuscript.

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Additional information

Author contributions: The author solely contributed to this work.

Conflict of interest: The author has declared that no competing interests exist.

Data availability: All of the data that support the findings of this study are available in the main text.

Ethical statement: No ethical statement was reported.

Funding: This study was funded by the author and by the China Scholarship Council.

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